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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,659	06/23/2003	Tetsuzo Ueda	60188-613	6152

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EXAMINER	
MAI, ANH D	

ART UNIT	PAPER NUMBER
2814	

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/600,659	UEDA ET AL.	
	Examiner	Art Unit	
	Anh D. Mai	2814	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *15-27,29,30 and 34-48* is/are pending in the application.

4a) Of the above claim(s) *15-25,30 and 34-45* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26,27,29 and 46-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *15-25,30 and 34-45* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

1. Amendment filed November 4, 2005 has been entered. Claims 15, 26, 27 and 44 have been amended. Claim 48 has been added. Claims 15-27, 29, 30 and 34-48 are pending.

Election/Restrictions

2. This application contains claims directed to the following patentably distinct species of the claimed invention:

Claims 15-25, 30 and 34-45, directed to **restricted species**, embodiment 2, as describes in Figs. 4-7, forming a semiconductor light-emitting device having a current confinement layer.

Claims 26, 27, 29 and 46-48 directed to elected species, embodiment 1, as describes in Figs. 2A-D.

3. Newly submitted claims 15-25, 30 and 34-45 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: newly submitted claim 15 recites the distinct and restricted species, of embodiment 2, including a current confinement layer forming on the surface semiconductor multilayer, see Fig. 5A. This distinct species was restricted and species of embodiment 1, Fig. 2A-D, has been elected without traverse on November 19, 2004. Moreover, numerous Office Action have been issued for the elected species.

Since applicant has received actions on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the

merits. Accordingly, claims 15-25, 30 and 34-45 have been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Action on merits of the elected species, claims 26, 27, 29 and 46-48 follows.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 27 and 46-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 27, there does not appear to be a written description of the claimed limitation: "between steps f) and step g), **further** including the step of: h) bonding a second supporting material in film form, onto the surface of the semiconductor multilayer film and the second electrode opposite to the *first supporting material.*

Note that before step g) the first supporting material 41 is still on the surface of the semiconductor multilayer film 11.

Again, claim 27 recites: between step f) and step g), further including the step of: h) bonding a second supporting material in film form, onto the surface of the semiconductor multilayer film.

The semiconductor multilayer film has no more surface for the "second supporting material film" to bond onto.

By the virtual of the dependency, claims 47 and 48 also contain new matters. Applicant must cancel the new matter in response to the Office Action.

With respect to claim 46, there does not appear to be a written description of the claim limitation "the total thickness of the thick metal film and the first supporting material is 150 μm or more" in the application as filed.

According to claim 26, in light of the specification, the thick metal film 16 has a thickness of about 500 nm and that of the first supporting material 41 or 43 is about 100 μm. (See page 19). Thus the combine thickness is 100.5 μm, not 150 μm.

Specification fails to support the amended claim, thus new matters have been inserted. Therefore, claims 27, 46-48 can not be examined for its merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims **26**, 29, 46, 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo (U.S. Pub. No. 2003/0189212) in view of Iwafuchi et al. (U.S. Pub. No. 2002/0115265) all of record.

With respect to claim **26**, Yoo teaches a method for fabricating a semiconductor light-emitting device (LED) substantially as claimed including:

a) forming on a substrate (122) of a single crystals a semiconductor multilayer film (120) including at least two semiconductor layers having mutually different conductivity types; (see Fig. 1);

b) forming a first electrode (190) on a surface of the semiconductor multilayer film (120); (see Fig. 6);

c) forming a thick metal film (192) over the first electrode (190); (see Fig. 7);

d) bonding a first supporting material (200), which is made of hard, flat surface, onto the thick metal film (192) for supporting the semiconductor multilayer film (120); (see Fig. 8);

e) separating the substrate (122) from the semiconductor multilayer film (120) after step d) is performed; (see Fig. 10);

f) forming a second electrode (230) on a surface of the semiconductor multilayer film (120) opposite to the surface of the semiconductor multilayer film (120) on which the first electrode (190) is formed; (see Fig. 12); and

g) peeling off the first supporting material (200) from the thick metal film (192) on the semiconductor multilayer film (120). (See Fig. 15).

Yoo also teaches that "any hard, flat surface with sufficient thickness to support a wafer containing the individual LED semiconductor device during substrate swapping is acceptable". (See [0041]).

Thus, Yoo is shown to teach all the features of the claim with the exception of explicitly utilizing plastic material in film form for the first supporting material.

However, Iwafuchi teaches that plastic material in film form (14) is routinely utilized for a temporary supporting material. (See Fig. 1).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to utilize plastic material in film form for the first supporting material of Yoo as taught by Iwafuchi during the substrate swapping without deviated from the scope of Yoo.

With respect to claims 27 and 46-48, since the claims contain new matters, a reasonable examining of the merits of the claim is impossible or not warranted.

With respect to claim 29, in view of Iwafuchi, the plastic material (14) is a polymer, and the polymer film (14) is provided, at a bonding surface thereof, with an adhesive layer (13 of Iwafuchi or 198 of Yoo) that can be peeled off when heated.

Response to Arguments

6. Applicant's arguments filed November 4, 2005 have been fully considered but they are not persuasive.

Regarding the Restriction:

Applicant appear to contend that since the current confinement film is merely added to the device of claim 15, as recites in claim 44, the restriction is never proper.

However, the specification clearly discloses at least two distinct embodiments and the current confinement is mutually exclusive of the second embodiment, therefore, the restriction is proper and had been made final.

Note that the restriction of the current confinement film, species, has been imposed and accepted *without traverse* by the Applicant in the election filed November 19, 2004.

Applicant further adds that the "current confinement" is just an additional feature being added to the structure of claim 15 and is not a species.

However, the specification begs the differences. The specification clearly indicates that the two devices, one with current confinement and one without, are made differently and function differently. They are not obvious to one another and the method of embodiment 2 is not indicated as an obvious variation of the method of embodiment 1. Clearly, the two devices are different and the current confinement is mutually exclusive to embodiment 2.

Argument regarding the merits of claim 15:

Since claim 15 and the dependent claims thereof, have been restricted, thus, the argument with respect to the scope or form of these claims are moot.

7. Applicant's arguments with respect to claim 26 have been considered but are moot in view of the new ground(s) of rejection.

8. Regarding the new matters of claims 27 and 46, Applicant fails to provide support for the new matters.

Since the claims contain new matters, which there are no support from the specification, the merits of the claim can not be fairly examined for its non-supported scope.

With respect to claim 46, Applicant appears to contend that film 18 is the thick metal film of claim 46.

However, to determine which is the "thick metal film" in the claim, one having ordinary skill in the art should have to review claim 26, the independent claim. Claim 26, step d) recites: "bonding a first supporting material, which is made of a plastic material in film form, onto thick metal film for supporting the semiconductor multilayer film". Applicant alleges support for the thick metal film is shown in Figs. 12 and pages 32-33. Accordingly, the "thick metal film" that the first supporting material 43 bonds to is metal film 16, not film 18, because the supporting material 42 is bonds to the semiconductor multilayer film 11, not a metal film, on the opposite side, see Fig. 11C, page 31, lines 5-9.

Applicant appears to combine any thicknesses to support his incorrect contention and disregards the scope of the claim.

The matter of claim 46, which is not an original claim, is new and un-supported.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

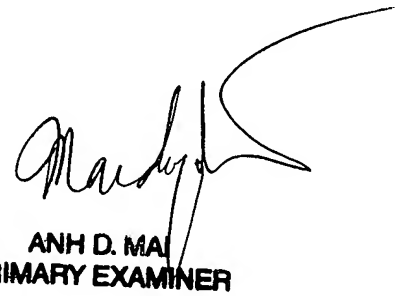
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh D. Mai whose telephone number is (571) 272-1710. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ANH D. MAI
PRIMARY EXAMINER